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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,662	09/23/2003	W. Alan Propp	LIT-PI-344.2D1	5543
7590 05/28/2004			EXAMINER	
Stephen R. Christian			TSOY, ELENA	
BBWI			ART UNIT	
PO BOX 1625			PAPER NUMBER	
IDAHO FALLS, ID 83415-3899			1762	

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,662

Applicant(s)

PROPP ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1</u> . | 6) <input type="checkbox"/> Other: _____ |

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. **Claims 1-19** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 6,495,204 in view of Small et al (US 4,015,558).

Patent No. '204 discloses a method of continuously modifying an elongated substrate with a modifying agent comprising: providing a (first) processing chamber configured for applying a (first) modifying agent to the elongated substrate, the first processing chamber comprising a first region, a second region, and a constricted medial region between the first region and the second region and configuring the first processing chamber to accept a (first) treatment mixture into the constricted medial region during continuous movement of the continuous substrate through the (first) processing chamber; providing a (first) treatment mixture comprising the (first) modifying agent in a (first) carrier medium, the (first) carrier medium being selected from the group consisting of a supercritical fluid, a near-critical fluid, a superheated fluid, a superheated liquid, and a liquified gas, such that the (first) modifying agent

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separates from the first carrier medium upon a pressure drop through a rapid expansion of the carrier medium caused by said pressure drop thereby applying the (first) modifying agent to the continuous substrate; passing the elongated substrate through a passageway substantially sealed from an external environment by a pair of end seals small enough to substantially retain said chemical treatment mixture and large enough to allow said passing of the elongated substrate (See Claims 12-14, 26-28). Thus, Patent No. '204 discloses a first processing chamber of claimed invention except for the use of a second chamber, which is similar to the first chamber, for applying a second modifying agent (Claims 1, 8); providing a first interstitial seal disposed between the first processing chamber and the second processing chamber, configured for keeping fluids present in each of the processing chambers substantially separate (Claims 2, 17); providing a second interstitial seal and a third processing chamber disposed between the second processing chamber and the second end seal (Claim 5).

Small et al teach that multiple successive layers of various types of coatings (See column 15, lines 20-23) can be deposited upon continuously moving web (See column 5, lines 52-53) using multiple separate chambers 153 (See column 6, lines 25-34), wherein each of separate chambers 153 is provided with a seal at the entrance end and exit end (See column 6, lines 35-38) to allow pumping each of separate chambers 153 individually (See column 15, lines 24-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used multiple chambers similar to a processing chamber of Patent No. '204 connected to each other through end seals with the expectation of providing the desired multiple coatings, as taught by Small et al.

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As to claims 9, 10, 14-16, Patent No. '204 in view of Small et al fails to teach that an injector is directed co-currently (Claim 9) or counter-currently (Claim 10), tangentially toward the constricted medial region of the second processing chamber (Claim 14) or essentially perpendicular to the passageway in the second processing chamber (Claim 15) or in close proximity to the passageway such that the injector can impregnate the continuous substrate with a high pressure injection of the second treatment mixture (Claim 16).

One of ordinary skill in the art at would know that direction and angle of injecting a coating material to a moving substrate are a result-effective parameters, which depend on particular application.

It is held that it is not inventive to discover the optimum or workable ranges of result-effective variables by routine experimentation. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). See also In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant direction or angle parameters (including those of claims 9, 10, 14-16) in Patent No. '204 in view of Small et al through routine experimentation depends on particular application in the absence of a showing of criticality.

3. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

Jacobson et al (US 4,841,908) teaches a plurality of deposition chambers fconnected through end seals for continuously depositing different layers onto a moving web (See Abstract).

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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elena Tsoy
Primary Examiner
Art Unit 1762

May 25, 2004